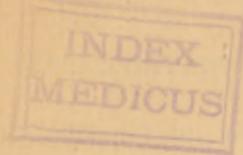


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REPORT ON NASAL SURGERY



WITH ILLUSTRATED CASES.

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REPORT ON NASAL SURGERY, WITH ILLUSTRATED CASES.*

The status of nasal surgery compares favorably with other branches of surgical science, and its devotees will be found in the front rank of the army of surgical workers.

An inquiry into the causes of inflammations of the nasal mucous membrane, aside from those that are produced by syphilis and the exanthems, and a more careful study of the pathology of these inflammations has brought to light many things to guide us in their management that in years gone by gave both doctor and patient an incalculable amount of trouble. Many cases that were then considered catarrhal inflammations are now known to be due to malformations by which the membranes covering the septum and that covering the turbinated bones are thrown together, and thereby keeping up a constant irritation by their actual contact, and by preventing nasal respiration, or, more strictly speaking, by producing complete or partial nasal stenosis. Again, the erectile tissue that is found in the nose is often the seat of disease, and from one cause or another is kept in a state of constant erection which in most cases results in partial or complete stenosis, possibly all of the time in some cases.

In many the stenosis is of a temporary character, coming on when in a close room, or at night while in bed, or during the time of dressing for bed. In such cases there may or may not be hypertrophy of the membrane. It exists in many to a limited degree. In some the membrane covering the inferior or middle turbinated bones is much thickened. The nasal secretion from most of these cases is composed almost entirely of a glairy, white mucus, which is at times streaked with blood when the nose is blown violently. As a rule there is no pus in the secretion, unless the patient should have an acute coryza. Washes, lotions, snuffs, and salves in such cases are only palliative. The remedy is to remove the hypertrophied tissue where the thickening is great, or by searing the surface from time to time with a hot wire from an electro-cautery in case the erectile is the seat of the trouble.

As a rule it is not desirable to destroy a great amount of tissue at one point of the nasal mucous membrane, because it results in a cica-

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trix, which will always be a source of annoyance because it affords a lodging place for inspissated secretions. Indeed, I have seen much harm result from too liberal use of the cautery in the nose.

The absence of pain during the process of the operation is no doubt the cause of this excessive burning. As the patient enters no complaint, the operator becomes unmindful of the fact that the hot wire is melting away tissue that ought not to be destroyed. Young operators are very liable to overlook this important point in the use of the cautery.

The greatest benefit in most cases is in simply searing the surface from time to time until the terminal ends of the sensitive nerves become so obtunded as to prevent them from responding to every insignificant irritant that comes in contact with the nasal mucous membrane. The quieting of these irritable nerve-endings enables the membrane to assume its normal condition, and finally enough rest results in a cure.

The following case is an interesting one, as it shows to what degree this nasal irritation may make an individual unhappy: Mrs. H., aged twenty-four, apparently in good health, complained of restlessness and an inability to procure good, sound sleep. She had an attack of diphtheria some eighteen months preceding last March, the time at which she consulted me concerning her difficulty in breathing, and also the defect in her voice, which amounted to an inability to pronounce her *m's* and *n's* plainly, always failing to sound these two letters as they should be in certain words, as in *money* and *common*.

During her sleep she tossed about the bed, the muscles of the extremities acting frequently as though they had been irritated by an electric current, the legs and arms being suddenly flexed and then relaxed. She had complained of this a year prior to this last visit, and at that time I ordered her to take strychnia, which was kept up for five months save at short intervals. The effects of the strychnia were not manifest so far as the choreic symptoms were concerned, for they were much the same at the end of the five months as in the beginning, and she ceased the use of the strychnia, as she said, "because it did not prevent the muscular twitchings."

At her visit in March she asked me particularly about the possibility of the nasal tone which she had been caused by a form of diphtheritic paralysis which she had learned might produce such results, and also thought that the difficult nasal breathing might be due to the same cause. A critical examination revealed the fact that the mem-

brane covering the inferior turbinated bones was much thickened and very sensitive to the touch. The surface was cocainized and the free border seared from one end to the other. This maneuver was gone through with about every eighth day until it was repeated six times. After the third burning the muscular twitchings ceased, and up to date she has been free from them. Her voice and breathing were fully restored to their normal condition at the time of dismissal.

This case is given for what it is worth, going to show as it does that the cause of disease is often remote from the symptoms manifested.

Removal of nasal tumors is much the same as it was in years gone by, viz., by surgical means. The great difference consists in the means at our disposal for this purpose, the most valuable of which is cocaine. With it we are enabled to accomplish many things now that before the era of cocaine would have been impossible, because of the great pain accompanying such operations without an anesthetic for such purposes. Another objection to general anesthesia in such operations is because of the blood, which in many instances gives rise to no small difficulty during such surgical procedures.

With the aid of cocaine the cautery wire may be used on children of tender years, and tumors removed from the same class of patients with little or no difficulty, whereas without it such operations on the nose would be impossible and impracticable without general anesthesia. There have been many improvements in the instruments used for removing tumors from the nose, and particularly in snares, hooks, and scissors is this advance most marked.

The implements that have been devised in the last ten years for dealing with bony structures are numerous and valuable. Probably the most valuable are to be found in the saws, bone pliers, and pliers for breaking the bony septum.

CORRECTION OF NASAL DEFORMITIES, AND RESTORATION OF THE NOSE WHERE IT HAS BEEN DEPRESSED AS THE RESULT OF INJURY OR DISEASE. The nose being an organ made up largely of muscles, skin, and mucous membrane, which is richly endowed with blood-vessels and nerves, is a field that is well calculated for plastic work.

It is well known to every one that the nose will stand almost any amount of mutilation, and in some cases it would seem almost impossible to destroy this organ by any fair means, so persistently does it hold its own under the most adverse circumstances. With this knowledge of the anatomy and peculiarities of the structures entering into



FIG. 1.



FIG. 2.



FIG. 3



FIG. 4.

the composition of the nose, the surgeon is armed with a weapon to battle with any foe that he may encounter in this region—the face or the nose. The work of restoring a depressed nose is in most cases plastic, and requires that the surgeon should at least be an expert surveyor and a ready deviser, as it often happens that his plans, which have been made previous to the time of actual work, will have to be changed after the work has commenced, and unless the surgeon is prepared to make any change that may be needed in the work during its progress he will certainly be much embarrassed and his patient liable to suffer from want of such skill.

The following cases, with the accompanying cuts, will serve to illustrate what can be done with a nose:

CASE I. Edward Peters, white, aged twenty years, a native of DePauw, Indiana, was sent to me by Dr. George W. Baylor, of Milltown, Indiana. Mr. Peters is a well-developed man, of muscular frame, and in every way perfectly developed, save the nose, as shown in Figure 1. During the time that Mr. Peters' mother was pregnant with him she became very much frightened at a mad sow, and when Mr. Peters was born his face was disfigured by the nose being shaped in many respects like that of an ordinary "hog snout." Particularly is this manifest in the nostrils, which, as will be seen, stand wide open. There is no other defect of body or mind. Mr. Peters is well educated, and a man above the average in intelligence. Without entering into any discussion as to whether the fright received by the mother had any thing to do with producing the malformation of the child, I will proceed to tell how I corrected the deformity.

Mr. Peters was very anxious to have the nose put into passable shape if possible, and with that view gave me full and complete charge of his case, with permission to continue to operate until both he and I should be satisfied with the results. It was an unusual operation, and one of greater magnitude than it would appear to be at first sight. I searched in vain for something in the works on surgery to enlighten me concerning the operation, and finally had to plan an original operation for the case. With every thing ready, and with Professor Henry Orendorf as the anesthetizer, ether being used, and Drs. G. W. Baylor, Samuel Holloway, and John H. Metcalfe, of Louisville, the operation was proceeded with as follows:

An incision was made from a point where the nasal bones and the cartilages unite, downward through the median line to a point on the

lip where the nose or proboscis terminated. Then two lateral incisions were made extending horizontally almost to the nostrils, care being taken not to encroach upon the mucous surface. Then all of the tissues were dissected up and pushed aside so as to fully expose the underlying osseous growth. This osseous growth was about the size of an ordinary walnut after the hull has been removed. It was round, and was really a double shell, the outer portions being as hard as ivory, and the inner portions being made up of bone tissue resembling cancellated osseous structure. The outer portions were extremely hard, so much so that I broke two good saws before I was through with the operation. In order to avoid mutilating the soft tissues, it was necessary to remove the mass of bone in sections. The first was a wedge-shaped piece taken from the center; then pieces were removed from first one side and then the other until four other pieces were removed. Then the remaining portions were broken off with pliers and chiseled off until all of the bone was removed, at least as much as desired. There was not a great amount of bleeding, but it was troublesome on account of some of the vessels coming through the cancellated portions of the bone. After the bleeding had been thoroughly stopped, a stout ligature armed with an ordinary shirt button was passed through the nose from one nostril to the other, taking care to pull the left nostril into its proper position, it being the most out of place. Apposing the parts in such a way as I thought best, another button was placed on the ligature and pushed down into the right nostril, and retained in its place by a perforated shot. Two other ligatures were placed higher up, and retained in the same manner with buttons and shot. This was the major adjustment. Then the edges of the wound were carefully adjusted and closed with an ordinary silk over-stitch, and the wound covered with iodoform gauze. A small drainage-tube was placed in the most dependent part of the wound. Thorough asepsis was practiced during the operation, no antiseptic being used save the iodoform dressing. The patient was given an opiate and put to bed; had a fair night, but suffered some on the following day from nausea as the result of the etherization. The temperature was 100.5° the first day after the operation. On the second day in the afternoon the temperature was 102.5°. There was no pain, nor was there much swelling, no pus, nor any thing to indicate that the temperature was the result of the operation. Twenty grains of quinine were given during the evening, and on the following morning the temperature was 99°, and during the day went down to 98.5°, and there was no further rise.

The second operation was done on May 4th (the first having been done April 13th), under ether. This consisted in remodeling the soft tissues that were left after the first operation. As shown in Figure 1, the proboscis extended down onto the lip fully one half of its length. There was a good deal of the substructures that it was necessary to remove—that portion which extended down onto the lip was a sort of cartilaginous mass.

This second operation was done by laying the tissues open along the median vertical line down as far as the growth extended onto the lip. Then two lateral incisions (one right and one left) were made along the line where the upper end or edge of the lip ought to be. This exposed all of the sub-tissues, and after removal of such of these structures as I deemed necessary, and after shaping the flaps so as to make them unite properly, they were closed with small silk sutures, and a dressing of iodoform gauze was placed over the wound and held in position by collodion. There was no rise of temperature after this operation, and union was perfect everywhere along the line of the wound, and there was no pus formed save at the site of the sutures. The stitches were removed on the third day, and Mr. Peters returned home on the eighth day after the second operation. The time intervening between the first and second operations was twenty-one days. Figures 1 and 2 represent his condition before and after the operation.

The case represented by Figures 3 and 4 is that of Mr. Hermann Bouroughs, of Morganfield, Ky. Four years ago he was run over by a wagon, and the outer plate of the frontal bone, nose and face were badly mashed, the nose being so crushed as to force it down to a common level with the adjacent parts of the face. His injury was so severe that his parents and physicians thought that recovery was impossible, and as a result little attention was paid to his nose. The inner canthus of the left eye was pulled down much below its normal position, and a large cicatrix existed just below the left eye at the junction of the nose and the face.

Examination showed that one of the nasal bones had been lost, either by absorption or had come away at the time of the injury. The other was flat down and in such a position that I deemed it best to let it remain where it was, as the operation was to be done only for cosmetic purposes, his breathing capacity through the nose being good. This operation was done April 4, 1893, by making an incision from a point a little above where the eyebrows unite down almost to the tip

of the nose, carrying the cut down cleverly through the true skin and immediate underlying tissues, which were dissected up well down to the face—that is, well down to the line where the tissues curve up from the face onto the nose. The cicatrix under the left eye was cut in such a manner as to let it loose from its holdings, and thus enable me to elevate the canthus on that side. After a thorough dissection of all the tissues that were desirable the parts were pulled together and elevated so as to give the nose more prominence than would be desirable under ordinary circumstances. This was done to allow for contractions, which always follow such operations to a certain extent. The apposition of the parts was maintained by two small rubber splints, one placed on either side of the nose in such a position as to keep the structures in the desired position, and they were kept in their places by passing three ligatures through the splints and all of the intervening tissues. The ligatures were kept in place by shot. These splints gave a firm support, and the wound was then closed with small silk sutures, eight or nine in number, so as to bring the integument into perfect apposition. The wound was dressed with iodoform gauze. No elevation of temperature of any consequence followed the operation. There was no pus, not even stitch suppuration. The result of the first operation was most gratifying, almost giving the results desired. Near the lower part of the wound the cicatrization was greater than I anticipated, and on the fourteenth day after the first operation a small incision was made near the lower part of the former wound, and in the same line, and the parts lifted up and kept in place by the use of two common shirt-buttons, one being placed on the ligature before it was passed through, and the other after it had been passed. A shot followed the last button, and when every thing was perfectly adjusted the shot was made to clamp the ligature and keep it in place. This last operation completed the result, as seen in Figure 4.

These two operations illustrate the kind of work that can be done about the face, and I trust will be of some benefit to the profession, who will find, as I did, that there is but little written in books or journals upon this very important branch of surgery.

LOUISVILLE.